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SUBJECT

Types of Photo Cells Produced by VEB
Carl Zeiss, Jena

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The following table lists the types of photo cells produced by VEB Carl Zeiss, Jena:

I. Sound Film Cells

1. TK-16 Cells:

- a. Cesium-Oxide Cell (red sensitive), gas filled. Sensitivity over 160 microamperes per Lm. Operating voltage up to 150 volts Ignition voltage over 250 volts
- b. Cesium-Antimony Cell (blue sensitive), gas filled. Sensitivity over 160 microamperes per Lm. Operating voltage up to 150 volts Ignition voltage over 250 volts.

2. TK-35 Cells:

- a. Cesium-Oxide Cell, data as above.
- b. Cesium-Antimony Cell, data as above.

The above-mentioned cells are mainly used for the 16-millimeter and 35-millimeter portable sound film set produced by Zeiss. They can also be used, however, for purposes of circuit and regulating technology (Schalt-und Regelitechnik).

II. Measurement and Special Cells

Type	Cathode	Filling	Sensitivity: Micro-Ampere per Lm	Ignition Voltage	Insulation Resistance
MV	red	vacuum	35	-	10 power 12
MVS	blue	vacuum	35	-	10 power 12
MG	red	argon	150	300	10 power 12
MGS	blue	argon	150	300	10 power 12
MKRS	blue	krypton	100	250	10 power 12
MKV	red	vacuum	35	-	10 power 13
MKVS	blue	vacuum	35	-	10 power 13
MRG	red	argon	150	300	10 power 13
MKGS	blue	argon	150	300	10 power 13

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III. Measurement and Special Cells of Glass Permitting Passage of Ultraviolet Light

MGV - data same as MVS in II. above.
 MGS - data same as MGS in II. above.
 MKV - data same as MKVS in II. above.
 MGS - data same as MKGS in II. above.

IV. Selenium Photo-Elements

Diameter or Dimensions in Centimeters	Usable Surface in Square Centimeters	Minimum Sensitivity in Microampere
12	0.67	45
18	1.32	90
25	3.14	210
32	4.9	300
39	6.6	390
45	11.3	650
57	28.3	1,100
22 x 40	5.2	315
10.8 x 48.4	4.5	270

The data indicated above are measured at 1,000 Lx (color temperature 2,300K) and 120 Ohm instrument resistance. The elements are used in measurement technology (luxmeter, flame photometer, quartz photometer) and in circuit and regulation technology (dusk switch).

V. Cadmium-Sulfide Crystal Cells

Sensitivity 1 to 2.5 milliamperes at 1,000 Lx (color temperature 2,300K).
 Maximum voltage at the cell: 30 volts. Used for circuit purposes (light barriers without amplifier, relay circuits, metering relays).

VI. Cadmium-Selenium Cells

Sensitivity 150 to 250 V/V. Maximum voltage at the cell: 30 volts.
 Used with AC amplifier for measurement and regulating technology.

VII. Lead-Sulfide Cells

Sensitivity 50 to 150 V/V. Maximum voltage at the cell: 30 volts.
 Used with AC amplifiers for measurement and regulating purposes in the near infrared and visible range.